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ABSTRACT

The twelve tables in this study represent the results of a Fall 1975 survey of the 589 operating school districts in the State of New Jersey to determine the status of computer and data entry equipment utilization. Results show that the number of users of this equipment increased noticeably, primarily in administrative processing areas such as payrolls and accounts payable. Other increases were in the use of terminals and the enhancement of computer core size. Thirty-five districts reported plans or studies for using computers or data entry equipment in the near future. The survey instrument is appended. (Author/STS)

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SURVEY OF NEW JERSEY PUBLIC SCHOOL DISTRICTS USING COMPUTERS AND DATA ENTRY EQUIPMENT JANUARY, 1976

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FOREWORD

During the fall of 1975 the State Department of Education surveyed the State's 589 operating districts to determine the status of computer and data entry equipment utilization. The survey marked a change in survey and reporting emphasis. Whereas previous studies called for data on "School District's Using Automatic Data Processing Equipment", the most recent survey asked for "Computer and Data Entry Equipment" information.

The twelve tables contained in this publication represent an inventory of the "state-of-the-art" as perceived by willing respondents with only the questionnaire for guidance in understanding and interpreting the questions. Standard terms and definitions to describe the "state-of-the-art" have not advanced as rapidly as the variety of manufactured hardware devices reported in the survey. A follow-up of the first returns submitted revealed the need for improvement in the development and utilization of standard terms and definitions.

Generally speaking, the number of users increased noticeably. The increases were reported primarily in the administrative processing area with payrolls taking the lead over schedules for the first time. Accounts payable users also entered the top five of the most popular applications. Other noticeable increases were in the use of terminals and the enhancement of computer core size.

Thirty five districts reported plans or studies for using computers or data entry equipment in the near future.

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TABLE I

NUMBER OF NEW JERSEY PUBLIC SCHOOL DISTRICTS
USING COMPUTERS OR DATA ENTRY EQUIPMENT
BY COUNTY
JANUARY 1976

County	Number of Districts Using Computers or Data Entry Equipment			Total of all Districts Using Computers or Data Entry Equipment	Number of Operating School Districts	Percent of Operating Districts Using Computers or Data Entry Equipment
	Administrative Purposes Only	Instructional Purposes Only	Administrative & Instructional Purposes			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Atlantic	5		4	9	25	36.0
Bergen	18	7	23	48	75	64.0
Burlington	7		10	17	45	37.8
Camden	4	1	8	13	38	34.2
Cape May	2	2	1	5	17	29.4
Cumberland	3		2	5	15	33.3
Essex	2	2	12	16	22	72.7
Gloucester	8		4	12	28	42.9
Hudson	1	1	7	9	14	64.3
Hunterdon	12		4	16	29	55.2
Mercer	2		6	8	10	80.0
Middlesex	1	4	13	18	25	72.0
Monmouth	11	1	13	25	52	48.1
Morris	11	2	16	29	41	70.7
Ocean	2		6	8	28	28.6
Passaic	3	2	6	11	20	55.0
Salem	3		1	4	14	28.6
Somerset	5		9	14	19	73.7
Sussex	5		4	9	25	36.0
Union	6	1	10	17	23	73.9
Warren	4		2	6	24	25.0
Total	115	23	161	299	589	50.8

TABLE II

ENROLLMENT OF COUNTIES AND NEW JERSEY PUBLIC SCHOOL
DISTRICTS USING COMPUTERS OR DATA ENTRY EQUIPMENT
FOR EITHER ADMINISTRATIVE AND/OR INSTRUCTIONAL PURPOSES
JANUARY 1976

County	County Enrollments (1974-1975)	Enrollment in Districts Using Computers or Data Entry Equipment (1974-75)	Percent of County Enrollment Affected By Computers or Data Entry Equipment
(1)	(2)	(3)	(4)
Atlantic	37,360	19,719	52.8
Bergen	162,101	133,842	82.6
Burlington	78,561	55,377	70.5
Camden	98,493	69,769	70.8
Cape May	12,355	8,088	65.5
Cumberland	30,863	26,428	85.6
Essex	170,392	155,854	91.5
Gloucester	42,387	31,664	74.7
Hudson	88,601	85,961	97.0
Hunterdon	19,342	14,609	75.5
Mercer	55,873	53,867	96.4
Middlesex	122,388	115,720	94.6
Monmouth	109,914	88,035	80.1
Morris	92,608	86,742	93.7
Ocean	59,143	48,497	82.0
Passaic	87,043	76,029	87.3
Salem	14,204	10,583	74.5
Somerset	46,924	40,911	87.2
Sussex	24,051	14,486	60.2
Union	96,703	93,237	96.4
Warren	17,650	8,711	49.4
Total	1,466,956	1,238,129	84.4

TABLE III

TYPES OF RECORDS PROCESSED BY COMPUTER
IN NEW JERSEY PUBLIC SCHOOL DISTRICTS
BY COUNTY
January, 1976

	NUMBER OF DISTRICTS USING COMPUTERS TO PROCESS RECORDS																				
COUNTY	Census	Registration	Attendance	Schedules	Grades	Directory	Testing	Permanent Records	Cumulative Records	Health Records		Budget	Staff Personnel	Payroll	Purchasing	Accounts Payable	Inventory	Cafeteria	Library	Transportation	Research Analysis	Other Record
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Atlantic	1	3	3	2	2	1		1	2			2	3	6	1	2	1		3	2	1	
Bergen	5	11	14	28	19	8	12	9	7	4		12	7	28	6	13	7	1	2	2	4	10
Burlington	4	4	12	13	9	4	3	5	2	1		4	4	9	3	4	3	1		4	1	4
Camden	1	3	5	7	5	4	2	2	2			4	3	11	4	6	3			1	2	1
Cape May			1									1		1	1	1				1		
Cumberland	1	1	2	3	3	1		1	1			1		3		1	1			1		1
Essex		3	7	9	10	2	3	1	2			5	4	10	3	5	1	1	1	2	1	3
Gloucester	1		2	3	2	2						2		9	3	2	1			3		1
Hudson		2	6	6	5	1	1	1	1			1	1	5	1	2					1	
Hunterdon		1	5	5	4	2	4	2				2	1	12	2	3	2	1	3		1	1
Mercer	1		3	3	2	1	1	3	2			8	5	8	4	7	3			2		
Middlesex	4	4	9	14	13	4	4	9	4			10	8	14	7	10	2		2	3	2	3
Monmouth	7	8	16	14	16	9	5	8	6	3		12	3	15	6	12	2	1	1	4	3	13
Morris	1	8	11	12	12	7	5	8	8	1		11	3	22	12	15	4	2	1	11	4	6
Ocean	2	2	6	4	5	3	3	3	3			2	2	3	1	1	2			2	1	3
Passaic	2	3	7	8	8	5	1	4	3			3	3	6	1	3	2	1		3	2	2
Salem				1	1			1	1					2	1	1						2
Somerset	2	2	4	7	4	1	3	1	1			6	1	11	1	6	1			2		1
Sussex	2	2	6	6	6	2	3	3	1	1		3	1	6	4	5	2			1	1	
Union		2	9	12	8	1		2	1			6	4	12	4	8	2					
Warren			2	1	1							2		5	2	2	1					
Total	34	59	130	158	135	58	50	64	47	10		97	53	198	67	109	40	8	13	44	24	51

TABLE IV

NUMBER OF NEW JERSEY PUBLIC SCHOOL
DISTRICTS USING A COMPUTER AS AN INSTRUCTIONAL TOOL
FOR SELECTED APPLICATIONS
BY COUNTY
JANUARY 1976

	APPLICATIONS					
County	Tutoring	Simulation	Drill	Experi-mentation	Problem Solving	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Atlantic	1	3	4	3	4	1
Bergen	11	19	19	9	26	9
Burlington	3	4	6	6	7	
Camden		2	1	3	8	
Cape May		2	1	2	2	
Cumberland		1	1	1	2	
Essex	4	7	6	8	13	
Gloucester	1	2	3	1	3	
Hudson	1	4	2	3	6	1
Hunterdon	1	2	2	3	2	1
Mercer	1	1	2	2	6	1
Middlesex	3	6	6	8	14	4
Monmouth	2	7	5	7	11	5
Morris	4	10	12	10	16	3
Ocean		2	2	3	5	2
Passaic	4	6	5	5	8	1
Salem		1				
Somerset	1	7	4	6	8	
Sussex	2	3	3	2	4	
Union	6	8	7	8	10	2
Warren	1	1	2	2	2	
Total	46	98	93	92	157	30

TABLE V

SOME CHARACTERISTICS OF COMPUTERS AND SUPPORTING HARDWARE SYSTEMS
LOCATED IN NEW JERSEY PUBLIC SCHOOL DISTRICTS
BY COUNTY
JANUARY 1976

County	NUMBER OF DISTRICTS REPORTING*													
	Computer Core Size (K)							Auxiliary Storage			Punch Card Peripherals		Printer	Communication Terminals
	0-4	5-8	9-16	17-32	33-80	81-96	97+	Disc	Drum	Tape	I	O		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Atlantic			1	2					2			3	2	3	
Bergen			3	7	4	2		1	10		4	9	4	10	62
Burlington		1	3	2	2			1	7	1	1	5	4	5	4
Camden			2		3			2	3		3	6	4	5	16
Cape May				1		1		1	3		1			2	3
Cumberland						1			1			1	1	1	
Essex			2	2	3	1			3	1	5	3	2	5	27
Gloucester			1	2	1				3	1	2	2	2	4	4
Hudson			2	1				1	3		2	2	2	3	18
Hunterdon				3	1				3		1	4	3	4	6
Mercer			3	1	1	1			4			4	2	3	3
Middlesex			4	4	6				9		4	9	5	10	33
Monmouth			4	4	3			1	9	1	4	8	7	12	23
Morris			6	4	2	1			7		2	7	5	7	37
Ocean			1	1	1			1	4		1	3	1	4	12
Passaic			1	1	1	1		1	3	1	2	4	2	6	23
Salem								1	1						2
Somerset			1	6	2				3		4	2	1	2	19
Sussex			3	1		2			5		2	4	3	6	4
Union		2	3	2	2			1	7	2	4	6	3	6	36
Warren			1		1						1	1	1	1	3
Total		3	41	44	33	10		11	90	7	43	83	54	99	335

* Certain Districts Reported 2 Computer Systems.

TABLE VI

TYPES OF DATA ENTRY EQUIPMENT INSTALLED
IN NEW JERSEY PUBLIC SCHOOL DISTRICTS
BY COUNTY

JANUARY, 1976

County	Key-Punch	Key-Verifer	Key-Tape	Key-Disc	Optical Scanning	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Atlantic	4		1			1
Bergen	15	4	2		2	4
Burlington	8	3				2
Camden	6	4			1	
Cape May	1					
Cumberland	1					
Essex	7	1			2	1
Gloucester	4			1		
Hudson	5	3	1			1
Hunterdon	4	1		2		1
Mercer	6	2				
Middlesex	14	8	2	2	2	2
Monmouth	10	3	1		1	1
Morris	11	3				1
Ocean	5	1			1	
Passaic	7	2			1	
Salem						
Somerset	5	1	1		1	
Sussex	4	2			1	
Union	8	4	3			
Warren	1			1		1
Total	126	42	11	6	12	15

TABLE VII

TYPES OF UNIT RECORD PUNCH CARD EQUIPMENT
LOCATED IN NEW JERSEY PUBLIC SCHOOL DISTRICTS
BY COUNTY
JANUARY 1976

	NUMBER OF DISTRICTS REPORTING					
County	Collator	Interpreter	Reproducer	Sorter	Tabulator	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Atlantic		2	2	2	2	1
Bergen	6	1	8	14	5	2
Burlington		1	5	7	2	
Camden	1	2	4	5	2	1
Cape May				1		
Cumberland				1		
Essex	2	3	5	6	5	
Gloucester		2	2	3	1	
Hudson	2	2	3	5	3	
Hunterdon		1	1	1	1	
Mercer	1	2	3	5	2	
Middlesex	3	4	8	12	3	1
Monmouth	1	4	4	6	1	1
Morris	3	5	8	10	6	2
Ocean		2	2	4	3	
Passaic	3	3	3	6	3	1
Salem						
Somerset	2	3	3	3	3	
Sussex	1	1	2	4	3	
Union	4	2	5	8	6	
Warren	1		1	1	1	
Total	30	40	69	104	52	9

TABLE VIII

AGENCIES PROVIDING HARDWARE AND/OR SERVICES USED BY NEW JERSEY PUBLIC SCHOOL DISTRICTS
FOR RECORDS PROCESSING AND INSTRUCTIONAL PURPOSES
BY COUNTY
JANUARY 1976

	AGENCIES PROVIDING HARDWARE AND/OR SERVICES											
	District Owned Equipment		District Rented Equipment		Another Districts Equipment		Service Bureau Equipment		Private Firm		Other Agencies	
County	Records	Instructional	Records	Instructional	Records	Instructional	Records	Instructional	Records	Instructional	Records	Instructional
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Atlantic	4	4	1	2	2	2			4		1	
Bergen	6	9	10	15	6	11	11	2	14	2	2	
Burlington	6	5	6	5			2	1	5		3	1
Camden	5	5	4	6	2	1	2	1	2	1	1	
Cape May	1	1	1	2					1			
Cumberland	1	1					2		2	1	1	
Essex	8	6	5	7		4	6	2	4	1	1	
Gloucester	5	3	2	3					8			
Hudson	3	3	4	5	1	1			2		3	2
Hunterdon	1	2	3	1	1	1		1	12			
Mercer	6	3	5	5			2					
Middlesex	8	10	6	13	3	2	5	1	2		3	2
Monmouth	12	10	7	9	4	4	4		6		6	2
Morris	7	9	5	8	5	6	10	1	14		2	2
Ocean	4	4	4	3	3	2	1		1		1	2
Passaic	3	3	4	4	1	3			1			
Salem	1		1		2				1	1		
Somerset	5	6	1	5	1	1	3	2	7	1		
Sussex	4	3	4	3	1		2		2			
Union	6	4	5	9	2		3	3	7		1	
Warren	2	1							4			
Total	98	92	78	105	34	38	53	14	99	7	25	11

TABLE IX

NUMBER OF DISTRICTS REPORTING FULL TIME EQUIVALENT (FTE)
PERSONNEL EMPLOYED FOR ADMINISTRATIVE DATA PROCESSING
AND INSTRUCTIONAL PURPOSES
BY COUNTY
JANUARY 1976

County	NUMBER OF DISTRICTS REPORTING							
	FTE Personnel For Administrative Processing				FTE Personnel For Instructional Purposes			
	0-3	4-6	7-9	10 and Over	0-3	4-6	7-9	10 and Over
Atlantic	2	2			4			
Bergen	13	2			18	1		
Burlington	11				9			
Camden	6	1	1		8			
Cape May	2				1	1		
Cumberland	1				1			
Essex	9		1	1	5		1	2
Gloucester	5				3			
Hudson	3		1		5	1	1	
Hunterdon	2				4			
Mercer	5	2			3			
Middlesex	9	2	2	1	9			
Monmouth	12	2			10			
Morris	10	1			11			
Ocean	8				6			
Passaic	6	2			7			
Salem	1							
Somerset	7				7			
Sussex	6				4			
Union	9		1		7	1		
Warren	2				2			
Total	129	14	6	2	124	4	2	2

TABLE X

NUMBER OF DISTRICTS REPORTING ANNUAL COST
OF PERSONNEL FOR ADMINISTRATIVE DATA
PROCESSING AND INSTRUCTIONAL PURPOSES
BY COUNTY
JANUARY 1976

County	NUMBER OF DISTRICTS							
	Personnel Costs For Administrative Processing				Personnel Costs For Instructional Purposes			
	Under $10,000	$10,000 to $14,999	$15,000 to $19,999	$20,000 and Over	Under $10,000	$10,000 to $14,999	$15,000 to $19,999	$20,000 and Over
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Atlantic	1			3	1	1		2
Bergen	7	1	2	5	7	7	2	3
Burlington	3		2	6	5	2	1	1
Camden	4	1	1	2	3	3	1	1
Cape May	1	1				1		1
Cumberland	1					1		
Essex	2	1	3	5	3		1	4
Gloucester	4	1				3		
Hudson	2		1	1	2	1	1	3
Hunterdon	2				3	1		
Mercer	1	1	1	4	1	1		1
Middlesex	2		2	10	1	7	1	
Monmouth	3		4	7	3	2	2	3
Morris	3	1	4	3	4	3	2	2
Ocean	5	1		2	3		2	1
Passaic	2	1	2	3	2	1	1	3
Salem	1							
Somerset	7				5	1	1	
Sussex	3	1		2	2		1	1
Union	4	1		5	2	1	1	4
Warren		1	1			2		
Total	58	12	23	58	47	38	17	30

TABLE XI

TOTAL MONTHLY RENTAL COSTS OF INSTALLED COMPUTERS, UNIT RECORD PUNCH CARD EQUIPMENT, AND DATA ENTRY EQUIPMENT LOCATED IN NEW JERSEY PUBLIC SCHOOL DISTRICTS BY COUNTY JANUARY 1976

County	NUMBER OF DISTRICTS REPORTING MONTHLY RENTAL COSTS								
	Computer Systems			Unit Record Equipment			Data Entry Equipment		
	Under $1,000	$1,000 to $1,999	$2,000 and Over	Under $1,000	$1,000 to $1,999	$2,000 and Over	Under $1,000	$1,000 to $1,999	$2,000 and Over
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Atlantic	1			1			1		1
Bergen	7	3	4	10	1		10	1	
Burlington	2	2		6			7	1	
Camden	3		1	4			5	1	
Cape May	1	1							
Cumberland			1						
Essex	3	1	1	5			4	1	1
Gloucester		1	1	3			4		
Hudson		2		2	2		5		
Hunterdon	1	2	1	1	1		3		
Mercer		2		5			4		
Middlesex	2	1	1	8			11	2	
Monmouth	5	1	2	4			8		
Morris	3	4	1	6	1		6	2	1
Ocean	2	2	1	3			2		1
Passaic		1		4			3		
Salem									
Somerset	4						6		
Sussex	1	2	2	1			1	1	1
Union	3	2	3	3		2	4	1	2
Warren			2	1			2		
Total	38	27	21	67	5	2	86	10	7

TABLE XII

TOTAL ANNUAL MAINTENANCE COSTS OF INSTALLED
COMPUTERS, UNIT RECORD PUNCH CARD EQUIPMENT,
AND DATA ENTRY EQUIPMENT LOCATED IN NEW JERSEY PUBLIC SCHOOL DISTRICTS
BY COUNTY
JANUARY 1976

County	NUMBER OF DISTRICTS REPORTING ANNUAL MAINTENANCE COSTS								
	Computer Systems			Unit Record Equipment			Data Entry Equipment		
	Under $2,000	$2,000 to $2,999	$3,000 and Over	Under $2,000	$2,000 to $2,999	$3,000 and Over	Under $2,000	$2,000 to $2,999	$3,000 and Over
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Atlantic	1	1	1	1		1	2		
Bergen	3		4	3	1		2		
Burlington	1	1	2	4			4		
Camden	2		2	1			2		
Cape May									
Cumberland			1	2			1		
Essex	3		1	1			1		
Gloucester	1	1					1		
Hudson	1		1	1			1		
Hunterdon			1	1			1		
Mercer		1	1	2					1
Middlesex	3		4	4		1	2	2	1
Monmouth	3	2	4	1	1		2		
Morris	4	2	2	3	1		2	1	
Ocean	1	1		1			3		
Passaic			1	2		1	2		1
Salem		1							
Somerset	4			1		1	1		
Sussex		1	1	1	2	1	1	1	
Union	2		2	2	1		1		
Warren			2	1			2		
Total	29	11	30	32	6	5	31	4	3

SURVEY OF NEW JERSEY PUBLIC SCHOOL DISTRICTS USING COMPUTERS OR DATA ENTRY EQUIPMENT

COUNTY _____ **DISTRICT** _____

RESPONDENT'S NAME _____

A. OUR DISTRICT USES A COMPUTER OR DATA ENTRY EQUIPMENT FOR:

1. Administrative purposes — YES _____ NO _____
2. Instructional purposes — YES _____ NO _____
3. Other purposes *(Specify)* _____ — YES _____ NO _____

If all answers are "NO", please skip to question K

B. RECORDS ARE PROCESSED OR INSTRUCTION PROVIDED ON:
(Please Check All Those Applicable Under "R" For Records or "I" for Instruction.)

	R	I	
1.			District Owned Equipment
2.			District Rented Equipment
3.			Another District's Equipment

	R	I	
4.			Service Bureau Equipment
5.			Private Firm (Not Service Bureau)
6.			Other *(Specify)* _____

C. THE NAME OF THE MANUFACTURER OF COMPUTER OR DATA ENTRY EQUIPMENT USED FOR:

	Computer	Data Entry
1. Administrative purposes is		
2. Instructional purposes is		
3. Other purposes is		

D. CHECK THE TYPES OF RECORDS THAT ARE MACHINE PROCESSED BY COMPUTER.

1. _____ Census
2. _____ Registration
3. _____ Attendance
4. _____ Schedules
5. _____ Grades
6. _____ Directory
7. _____ Testing
8. _____ Permanent Records
9. _____ Cumulative Records
10. _____ Health Records
11. _____ Budget
12. _____ Staff Personnel
13. _____ Payroll
14. _____ Purchasing
15. _____ Accounts Payable
16. _____ Inventory
17. _____ Cafeteria
18. _____ Library
19. _____ Transportation
20. _____ Research Analysis
21. _____ Other Record *(Specify)* _____
22. _____ Other Record *(Specify)* _____

E. **A COMPUTER IS USED AS AN INSTRUCTIONAL TOOL FOR ONE OR MORE OF THE FOLLOWING:** *(See last page for definitions.)*

1. _____ Tutoring
2. _____ Simulation
3. _____ Drill
4. _____ Experimentation
5. _____ Problem Solving
6. _____ Other

F. **IF YOU OWN OR RENT EQUIPMENT LOCATED IN THE DISTRICT PLEASE COMPLETE THE FOLLOWING:**

1. Installed computer system

Computer System Manufacturer & Model Nos.	Core Size (K/Char)	Auxiliary Storage (BYTES)			Punch Card Peripherals		Printer Speed (LPM)	Other (Specify) (Include No. of Communication Terminals by Type)
		Disc.	Drum	Mag. Tape	Input	Output		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

What specific computer languages do you use? _____

_____

_____

_____

TOTAL MONTHLY RENTAL COST OF COMPUTER SYSTEM $ _____
IF PURCHASED: TOTAL COST $ _____
ANNUAL MAINTENANCE $ _____
YEAR PURCHASED _____

2. Installed unit record punch card equipment *(Respond to cols. 2 to 7 with an "X" if applicable.)*

Unit Record System Manufacturer	Collator	Inter-preter	Repro-ducer	Sorter	Tabu-lator	Other (Specify)
(1)	(2)	(3)	(4)	(5)	(6)	(7)

TOTAL MONTHLY RENTAL COST $_____
IF PURCHASED: TOTAL COST $_____
ANNUAL MAINTENANCE $_____

3. Installed data entry equipment *(Respond to cols. 2 to 7 with an "X" if applicable.)*

Data Entry System Manufacturer	Key-punch	Key-verifier	Key-Tape	Key-Disc	Optical Scanning	Other (Specify)
(1)	(2)	(3)	(4)	(5)	(6)	(7)

TOTAL MONTHLY RENTAL COST $ _____
IF PURCHASED: TOTAL COST $ _____
ANNUAL MAINTENANCE $ _____

G. THE NUMBER OF FULL TIME EQUIVALENT (FTE) PERSONS EMPLOYED FOR:

1. Administrative processing _____
2. Utilizing the computer as an instructional tool _____

H. THE ANNUAL COST OF THE PERSONNEL EMPLOYED IN ITEM "H" FOR:

1. Administrative processing $ _____
2. Utilizing the computer as an instructional tool $ _____

I. THE TOTAL ANNUAL ESTIMATED COST (PRESENT FISCAL YEAR) FOR ALL DATA PROCESSING EXCLUDING PERSONNEL $ _____

J. ARE YOUR DATA PROCESSING FACILITIES AVAILABLE FOR CONTRACT WORK?

1. YES _____ 2. NO _____

IF YES, DESCRIBE THE TYPE OF SERVICE _____

_____

K. IF YOU DO NOT PRESENTLY USE COMPUTER OR DATA ENTRY EQUIPMENT FOR ANY PURPOSE, ARE YOU PLANNING TO DO SO IN THE FUTURE?

1. YES _____ 2. NO _____

TYPE OF EQUIPMENT _____ _____

L. HOW MANY TOTAL SCHOOLS ARE IN YOUR DISTRICT?_____ OF THESE TOTAL SCHOOLS HOW MANY HAVE TYPEWRITERS WITH INTERCHANGEABLE TYPE FONTS?_____ OF THE LATTER NUMBER HOW MANY HAVE THE IBM ASA OCA 10 056 FONT? _____

DEFINITIONS FOR ITEM E:

1. Computer as a tutor

As a tutor *(a person employed to instruct another privately)* and under the control of a previously prepared computer program, the computer helps the student to understand a concept and develop skills in using it. *(Dictionary adaptation)*

2. Simulation

A learning process which involves pupils as participants in role presentations and/or games simulating real-life situations or environments. *(Handbook VI, U.S.O.E.)*

3. Drill

An orderly, repetitive learning activity intended to help develop or fix a specific skill or aspect of knowledge. *(Handbook VI, U.S.O.E.)*

4. Experimentation

An activity involving a planned procedure accompanied by control of conditions and/or controlled variation of conditions together with observation of results for the purpose of discovering relationships and evaluating the reasonableness of a specific hypothesis. *(Handbook VI, U.S.O.E.)*

5. Problem Solving

A thought process structured by the teacher *(or student)* and employed by the student for clearly defining a problem, *(writing an computer program)* forming hypothetical solutions, and possibly testing the hypotheses. *(Handbook VI, U.S.O.E.)*